



Science Ambassador Program A Professional Development Program for Middle and High School Science Teachers

Sponsored by the Centers for Disease Control and Prevention's
National Center on Birth Defects and Developmental Disabilities



The Centers for Disease Control and Prevention (CDC) has well-documented scientific issues that could provide excellent educational opportunities for teachers and students. While we at CDC have the scientific expertise, teachers have the educational training needed to develop effective lesson plans and activities that will bring this information into the classroom. To provide a bridge between CDC scientists and teachers, CDC is sponsoring the Science Ambassador Program. In this program, CDC scientists will work with science teachers to educate them about scientific public health issues. Following this instruction, teachers will be able to create effective lesson plans and engage students by bringing relevant and current public health issues into their science classrooms. Our goal is to improve scientific public health knowledge and foster this interest among teachers and adolescents.

Teachers will have the opportunity to learn about a variety of different topics, such as folic acid, birth defects, genetics, fetal alcohol syndrome, epidemiology, surveillance, hearing loss, diabetes, and physical activity. Participating teachers will then use this knowledge to write high-quality science lesson plans for publication. This program will allow teachers to become involved in creating new and exciting lessons, enhances their knowledge of the scientific basis of public health, and expands their professional network to include scientists at CDC.

Commitment to this program involves attendance at a summer workshop, followed by the development, extensive review and publication of two high-quality lesson plans, and the implementation of two Science Ambassador lesson plans by December 2005. Participants will be eligible for several different incentive awards, including taking class field trips to CDC's Global Health Odyssey Museum, having CDC lecturers visit their classrooms, and purchasing materials for their science classrooms. All participating teachers who complete the program will receive a certificate of completion and the title of Science Ambassador.

Application packages must be postmarked by March 15, 2005. Please mail all completed application packages to the following address:

**Centers for Disease Control and Prevention
National Center on Birth Defects and Developmental Disabilities
Attn: Heather Carter
1600 Clifton Rd. NE, MS E-86
Atlanta, GA 30333**

Incomplete applications will not be considered. If you have questions, please contact Heather Carter at HCarter@cdc.gov or 404-498-4080.

The Science Ambassador Program includes:

I. Workshop- A 6-day workshop held at CDC June 13 -18, 2005, in which participants will

- Interact with CDC scientists.
- Participate in multiple sessions on selected topics led by public health experts.
- Participate in a seminar on developing educationally relevant lesson plans.
- Begin to develop exemplary science lesson plans based on the different sessions presented.
- Enhance the professional network of science teachers and practicing scientists.
- Tour several CDC facilities, including the CDC Global Health Odyssey Museum.
- Present their lesson plan ideas to their peers at the end of the workshop.

Lunches will be provided during the workshop. CDC will fund travel and lodging for participants.

II. Lesson Plan Development

Participants will be trained by educational experts from the Georgia Department of Education to use an electronic lesson plan builder tool. This tool gives educators the opportunity to build and share best practice lesson plans that directly affect student learning and achievement. Each participant is expected to develop two exemplary lesson plans using this lesson plan builder. Each of the two lesson plans must be based on content presented at the workshop. If participants need guidance with content during lesson plan development, they will be able to consult with either the scientific session leaders or other CDC scientists.

Participants will have adequate time to work on their lesson plans and receive feedback throughout the workshop. Drafts of the two lesson plans will be due at the end of the workshop. After the workshop, lesson plans will be thoroughly reviewed. Based on CDC staff comments, teachers will have one week to resubmit changes to each lesson plan. It is imperative that teachers follow this strict schedule and *carefully consider* comments provided by reviewers. Lesson plans must be approved by CDC for publication on CDC's website and other educational websites by **October 1, 2005**.

III. Lesson Plan Implementation

Participants are expected to implement at least two lesson plans developed through the Science Ambassador Program by December 2005. Each participant should implement one of his or her own lesson plans. The second required lesson plan can be chosen from any of the other Science Ambassador developed lesson plans.

IV. Lesson Plan Development and Implementation Incentives

Participants will be rewarded for their hard work and ability to meet deadlines. Participants will be eligible for several different incentive awards, including taking class field trips to CDC's Global Health Odyssey Museum, having CDC lecturers visit their classrooms, and purchasing materials for their science classrooms. In addition, participants who complete all requirements will receive a stipend of \$75 for each lesson plan published (maximum two).

V. Science Ambassador Evaluation

Evaluation will be conducted for the workshop, lesson plan development, lesson plan implementation, and the program as a whole. Evaluation forms will be provided to participants.

Science Ambassador Application

To complete this form via computer, please hit the "Insert" button on your keyboard. This will allow you to type the information in the allowed space rather than adding spaces.

Section 1: Applicant Information

Name _____

Home Address _____

City _____

State _____ Zip _____

Telephone _____

Fax _____

Email _____

School _____

School Address _____

City _____

State _____ Zip _____

Telephone _____

Fax _____

Email _____

Principal's Name _____

Grade level(s) you teach _____

Subject area(s) you teach _____

Please list several of your scientific interests _____

Please list 10 items (not to exceed \$100) in the order of need that would be useful to you in your science classroom. (Examples: text books, calculators, other classroom supplies, etc.) _____

Section 2: Academic and Professional Experience (limit 2 pages)

Please attach a current curriculum vitae detailing your professional accomplishments and current activities, teaching experience, academic achievements, and awards or honors received.

Section 3: Letter of Recommendation

Please have a principal or supervisor complete the attached form indicating his or her support for your participation in this professional development program, along with a brief statement detailing your ability to mentor students. *Letters of recommendation should be placed in a sealed envelope with the signature of the principal or supervisor across the seal to ensure confidentiality.*

Section 4: Personal Statement (limit 1 page)

Please include no more than one page describing (1) why you would like to participate in this program, (2) how you would use the knowledge gained in your science classroom, especially as it relates to (a) public health, (b) your dedication to students and science education, and (c) your ability to complete all requirements of the program.

Section 5: Lesson Plan

Please include an example of your best *science* lesson plan. Lesson plans should include a title, primary learning outcomes, a procedure section including all supporting documents, and an assessment. See Appendix for Lesson Plan Information.

Section 6: Teacher Certification

Please attach a copy of your current teaching certification.

Eligibility

Participants must be practicing middle or high school science teachers. At this time, the Science Ambassador Program is limiting the number of participants.

Selection Criteria

All applications will be reviewed by the Science Ambassador Committee. Potential participants might be asked to participate in a telephone interview during the selection process. The following weighted selection criteria will be used:

- Academic and professional experience (25 pts)
- Lesson plan (25 pts)
- Personal statement (25 pts)
- Letter of recommendation (15 pts)
- Grade and geographic diversity (10 pts)

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Science Ambassador Program
Letter of Recommendation
(To be completed by applicant's principal or supervisor)



Please complete the following information. This information will be used to help the Centers for Disease Control and Prevention (CDC) choose candidates for the Science Ambassador Program. Selected science teachers will participate in a workshop hosted by CDC featuring eminent CDC scientists presenting information on various public health science topics. Teachers will use this information to develop unique and exemplary science lesson plans that meet state and national science education standards. Your input is greatly appreciated. **Please place this form (and any attached pages) in a sealed envelope with your signature across the seal to ensure confidentiality.**

Section 1: Please rate the teacher on the following characteristics:

	1 Poor	2 Fair	3 Average	4 Good	5 Superb
1. Ability to work with a team.					
2. Ability to use new or current information in the classroom.					
3. Ability to accept constructive criticism.					
4. Commitment to fulfilling professional obligations.					
5. Ability to use creative teaching methods.					
6. Computer literacy and the ability to use technology in the classroom.					
7. Ability to develop lesson plans.					

Additional comments: _____

Section 2: Briefly discuss how the candidate is dedicated to teaching science and how he or she mentors students in your school. Also, please address whether the candidate would have administrative support upon completing the program to implement Science Ambassador-approved lesson plans. (You may attach a separate page if necessary.)

Signature, Title

Date

Appendix

Lesson Plan Information

Lesson Title

Reflects the contents of the lesson in a descriptive and enticing way.

Primary Learning Outcomes

Describes the knowledge and skills that students will have upon completion of the lesson. These outcomes should be assessed as part of the lesson.

Procedures

Provides a step-by-step description of how the lesson plan is conducted from start to finish. Each step should accomplish a particular piece of the lesson and include teaching strategies that lead to the achieving of the primary learning outcomes. Steps should include text, as well as any supporting website URLs, and documents (worksheets, PowerPoint presentations, rubrics, etc). The lesson should use original ideas, text, and graphics. Any unoriginal information should be attributed in a manner keeping with copyright laws.

Assessment

Details how the lesson will be assessed, including quizzes, tests, rubrics, and checklists. This measurable assessment must indicate whether the students have mastered the concepts, particularly the concepts outlined in the primary learning outcomes.

For examples of Science Ambassador lesson plans, please visit the Science Ambassador website at www.cdc.gov/ncbddd and click on the Science Ambassador icon.